

REMARKS

The Office Action dated February 23, 2006 has been received and reviewed. Claims 1, 27, 30, 33, 36, and 38 have been amended, and claims 2 and 29 have been cancelled. The pending claims are claims 1, 3-28, and 30-44. Reconsideration and withdrawal of the rejections are respectfully requested.

Claim Amendments

Claim 1 has been amended to substantially include all of the elements of original claim 2. Claim 1 was also amended to include the term “reflective” in the phrase “a first portion of the interior reflective surface.”

Claim 27 has been amended to substantially include all of the elements of original claim 29.

Claims 30, 36, and 38 have been amended to depend from claim 27.

Claim 33 has been amended to depend from claim 27 and to recite that a reflector axis is defined between the first and second surfaces of the sheet. No new matter was added.

Claim Objection

Claim 33 was objected to because of the term “cylinder.” In response, Applicant has amended claim 33 as described above. Withdrawal of this objection is, therefore, respectfully requested.

The 35 U.S.C. § 102(b) Rejections

Claims 1-4, 9-10, and 14-17 were rejected under 35 U.S.C. § 102(b) as being anticipated by Parker (U.S. Patent No. 4,897,771).

Applicant traverses this rejection and submit that claims 1-4, 9-10, and 14-17 are novel over Parker because such reference does not teach each and every element of claims 1-4, 9-10, and 14-17. For a claim to be anticipated under 35 U.S.C. § 102(b), each and every element of the claim must be found in a single prior art reference. *See M.P.E.P. § 2131.*

For example, claim 1 recites a reflecting coupler that includes a body having an aperture extending therethrough from a first side to a second side. In contrast to claim 1, the teachings of Parker relied upon by the Office Action disclose a reflector and light system 1 that includes a reflector assembly 2 having a rearwardly facing collecting reflector 4 and a forwardly facing back reflector 5. *See* Parker, col. 4, lines 38-52. The collecting reflector 4 includes an opening 8 in the smaller end 9 of the collecting reflector 4. *Id.* at col. 4, lines 53-58. However, the opening 8 does not extend from the smaller end 9 through the reflector assembly 2 because the back reflector 5 does not include an aperture. In other words, unlike the embodiment recited in claim 1 of the present application, the teaching relied upon by the Office Action does not include a body having an aperture extending therethrough from a first side to a second side. Because Parker does not teach each and every element of claim 1, such claim is novel over Parker.

Claims 2-4, 9-10, and 14-17, which depend from independent claim 1, are novel over Parker for the same reasons as presented above for claim 1. In addition, claims 2-4, 9-10, and 14-17 each recite additional elements that further support patentability when combined with claim 1.

For at least the above reasons, Applicant submits that claims 1-4, 9-10, and 14-17 are novel over Parker. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

Claims 1, 4, 9, 11, 14-17, and 19 were rejected under 35 U.S.C. § 102(b) as being anticipated by Cerone et al. (U.S. Patent No. 6,343,872). Applicant traverses this rejection.

However, to further move this case towards issuance, Applicant has amended claim 1 to substantially include all of the elements of original claim 2. As amended, claim 1 recites that the first portion of the interior reflective surface is disposed proximate the first side of the body and the second portion of the interior reflective surface is disposed proximate the second side of the body. As claim 2 was not rejected under 35 U.S.C. § 102(b) as being anticipated by Cerone et al. Applicant submits that amended claim 1 is also not anticipated by Cerone et al.

Claims 4, 9, 11, 14-17, and 19, which depend from independent claim 1, are novel over Cerone et al. for the same reasons as presented above for claim 1. In addition, claims 4, 9, 11, 14-17, and 19 each recite additional elements that further support patentability when combined with claim 1.

For at least the above reasons, Applicant submits that claims 1, 4, 9, 11, 14-17, and 19 are novel over Cerone et al. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

Claims 1-2, 4, 9-10, 14-17, and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Davenport et al. (U.S. Patent No. 5,317,484).

Applicant traverses this rejection and submits that claims 1-2, 4, 9-10, 14-17, and 20 are novel over Davenport et al. because such reference does not teach each and every element of claims 1-2, 4, 9-10, 14-17, and 20.

For example, amended claim 1 recites that a first portion of the interior reflective surface conforms to a 2-D surface. A 2-D surface is defined in the Specification as a surface that has a radius of curvature in at most one plane only. *See Specification at ¶ 0036 (of the published application).* Further, claim 20 recites an optical system that includes a first reflecting coupler having a first portion of an interior reflective surface that conforms to a 2-D surface.

In contrast to claims 1 and 20, the Office Action alleges that Davenport et al. discloses a reflecting coupler that includes a first portion 80 of the interior surface that conforms to a two-dimensional surface, i.e., a cone in FIG. 4. However, according to the clear definition of 2-D surfaces in the Specification of the present application, a cone section is not a 2-D surface because the cone section has a radius of curvature in at least two planes. For example, in FIG. 4 of Davenport et al., cone section 80 has a radius of curvature in the plane of the drawing, and a radius of curvature in a plane that is normal to the longitudinal axis 40. Because Davenport et al. does not teach each and every element of claims 1 and 20, such claims are novel over Davenport et al.

Claims 2, 4, 9-10, 14-17, and 20, which depend from independent claim 1, are novel over Davenport et al. for the same reasons as presented above for claim 1. In addition, claims 2, 4, 9-10, 14-17, and 20 each recite additional elements that further support patentability when combined with claim 1.

For at least the above reasons, Applicant submits that claims 1-2, 4, 9-10, 14-17, and 20. Reconsideration and withdrawal of the rejections are, therefore, respectfully requested.

Claims 27-28 were rejected under 35 U.S.C. § 102(b) as being anticipated by Igram (U.S. Patent No. 5,709,463).

Applicant traverses this rejection. However, to further move this case towards issuance, Applicant has amended claim 27 to substantially include all of the elements of original claim 29. The Office Action admits that Igram does not teach all of the elements of original claim 29. Therefore, Applicant submits that amended claim 27 is in allowable form. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

The 35 U.S.C. § 103(a) Rejection

Claims 21-23 and 25-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Davenport et al.

Applicant traverses this rejection and submits that claims 21-23 and 25-26 are not *prima facie* obvious because Davenport et al. does not teach all of the elements of claims 21-23 and 25-26. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations. *See* M.P.E.P. § 2143.

Claims 21-23 and 25-26, which depend from independent claim 20, include all of the elements of claim 20. As stated above regarding the 35 U.S.C. § 102(b) rejection of claim 20, Davenport et al. does not teach all of the elements of claim 20, e.g., a first portion of the interior reflective surface conforming to a 2-D surface. In addition, claims 21-23 and 25-26 each recite additional elements that further support patentability when combined with claim 20.

For at least the above reasons, Applicant submits that claims 21-23 and 25-26 are patentable over Davenport et al. Reconsideration and withdrawal of this rejection are, therefore, respectfully requested.

Allowed Claims

Applicant acknowledges that claims 39-44 have been allowed.

Applicant also acknowledges that claims 5-8, 12-13, 18, 24, and 29-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In response, Applicant has amended claim 27 to substantially include all of the elements of original claim 29. As such, Applicant submits that claims 27-28 and 30-38 are in allowable form.

Applicant has not rewritten claims 5-8, 12-13, 18, and 24 at the present time as it is believed that the claims from which claims 5-8, 12-13, 18, and 24 depend are currently in allowable form.

Summary

It is respectfully submitted that the pending claims are in condition for allowance. Reconsideration and withdrawal of all rejections are respectfully requested. The Examiner is invited to contact Applicant's Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted,

July 24, 2006

Date

By: Jay R. Pralle

Jay R. Pralle, Reg. No.: 52,131
Telephone No.: 651-733-6750

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833